



SEQUENCE LISTING

<110> Phagotech, Inc.
PELLETIER, Jerry
GROS, Phillippe
DUBOW, Michael

<120> DNA SEQUENCES FROM STAPHYLOCOCCUS AUREUS BACTERIOPHAGE 44 AHJD
THAT ENCODE ANTI-MICROBIAL POLYPEPTIDES

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<141> 2000-12-01

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<210> 2
<211> 2286
<212> DNA
<213> Staphylococcus aureus Bacteriophage 44 AHJD

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<210> 3
<211> 1944
<212> DNA
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 3
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aattcaaaat catattatga ttatatattca agattatcaa aactaattga agtatttagca 180
cgtcgtatattt gggactatga caatgaatta aaaaaacggt tcaaaaattg ggacgactta 240
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<210> 5
 <211> 1464
 <212> DNA
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

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 tatgggcgct ttaatgtatg gcttggtggt aatgaaagta aaatcagaca agtattaaaa 180
 gcagtaaaag agataggtgt ttcacctact ctttttgccg tatatgaaaa aaatgagggg 240
 tttagttctg gacttggttg gttaaaccat acgtctgcac gtggtgatta tttaacagat 300
 gctaaattca tagcaagaaa gttagtatca caatcaaac aagctggaca accgtcttgg 360
 tatgacgcag gtaacatcgt ccactttgta ccacaagacg tacaagaaa aggtaatgca 420
 gatthttgcaa aaaatatgaa agcaggtaca attggacgtg catatatattcc attaacagca 480
 gctgctactt gggcggcata ttatccttta ggthtgaaag catcatataa caaagtacaa 540
 aactatggta atccattttt agacggtgcg aatactattc tagcttgggg tggtaaatta 600

gacggtaaag gtggatcacc tagtgattcg tctgacagtg gtagtagtgg tgacagtggg 660
 agttcactac tcgcttttagc aaaacaagcc atgcaagaat tattaaaaaa aatacaagac 720
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 gtattcttta gtggtattgc ttaa 1464

<210> 6
 <211> 1248
 <212> DNA
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 6
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 agaaaaaaaa tcccagataa gtataatcaa atagaattag ttgatgaact tatgaatgat 120
 gatatagatt attatatatc tttttcaaac cgttctgatg gaaaatcggt caactatggt 180
 tcatttttta tttatttagc tattaaactt gatataaaat ttactttatt atcacgtcat 240
 tatacattac gtgacgctta ccgtgatattt attgaagaaa tcatagatga aaatccacta 300
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 gataaagaaa ttggtgtgat tacagatttg aatagtgcc aatgatttaa atatcattct 420

aacttttttaa aacactatcc tattattata tatgatgagt ttttagcact tgaagatgat 480
tattttaattg atgagtggga taagttaaaa acaatatatg aatcaatcga ccgtaaccat 540
ggtaacgttg atttatattgg attccctaaa atgttttttac taggtaatgc agtcaacttt 600
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gttgataatg atagatatatt atatttagat atgaataaaa ttataaaatt tcatataaaa 1140
aatgaaatga agaaaaatat gagtgagttt gaaagaaaag aaaaaatata cgaagataac 1200
tatatagaga atacgaaaaa gtatctaatag aaacaatatg gcttataa 1248

<210> 7
<211> 1227
<212> DNA
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 7
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gcgttacaag attttaatca tgattattca aaatcttgga catttggcga caaatgggat 120
aattcaaata caatgttcga aacatttgta aataaatatt tattccctaa gattaatgag 180
actttattaa tcgatattgc attaggtaat cgttttaatt ggtagctaa agagcaagat 240
tttattggac aatatagtga agaatacgtg attatggaca cagtaccaat taacatggac 300
ttatctaaaa atgaggaatt aatgttgaaa cgtaattatc cacgtatggc aactaagtta 360
tatggtaacg gaattgtgaa gaaacaaaaa ttcacattaa acaacaatga tacacgtttc 420
aatttccaaa cattagcaga cgcaactaat tacgcttttag gtgtatacaa aaagaaaatt 480
tctgatatta atgtattaga agaaaaagaa atgcgtgcaa tgtagttga ttactcattg 540

aatcaattat ccgaaacaaa tgtacgtaaa gcaacatcaa aagaagattt agcaagcaaa 600
 gtttttgaag caatcctaaa cttacaaaac aacagtgtcta aatataatga agtacatcgt 660
 gcatcaggtg gtgcaattgg acaatataca actgtatcaa aattaaaaga tattgtgatt 720
 ttaacaacag attcattaaa atcttatctt ttagatacta agattgcaaa cacattccag 780
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 aaaccaccat tccataaccc tgaatttgat gaagttacac actggattca ttactattca 1140
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 aaaccagagg aagaattaca agaataa 1227

<210> 8
 <211> 984
 <212> DNA
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

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 ctactaatca actataccaa tcgtgatacg gttggtatag attttattca gttagaatca 180
 gctttaagac aaaacattaa tgtagttggt ggtgaagcta gaaataagca aattatgatt 240
 cttggttatg taaataacac ttactttaat caagcaccaa atttttcatc aaactttaat 300
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 atacctgatg attgtctaca aattcataag ctatatgata actgtatgag tggttaacttt 420
 gttgtcatgc aaaataaacc aattcaatat aatagtata tagaaattat agaacattat 480
 actgatgaat tagcagaagt tgctttatct cgcttttctt taatcatgca agcaaaattt 540
 agcaagatat ttaaatacaga aattaatgac gagtcaatca atcaacttgt gtccgaaata 600

tataacggtg caccatttgt taaaatgtca cctatgttta atgcagatga cgatatcatt 660
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aaaattagtg aattaagtaa ctatttaggc attaattcat tagccgttga taaagaaagc 780
ggtgtttcag acgaagaggc aaaaagtaat cgtggattta ccacatcaaa cagtaatatc 840
tattttaaag gtcgtgaacc aattacgttt ttatcaaagc gttatggttt agatattaaa 900
ccgtattacg atgatgaaac aacgtctaaa atatcaatgg tagacacact ttttaaagat 960
gaaagcagtg atataaatgg ctag 984

<210> 9
<211> 756
<212> DNA
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 9
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ttcaatgaat ttgtaaatga taataaatta acgttttatg atgatgaatt tcaattcatg 120
caaaaaatgc tgaagttcga caaagacggt ttagctatcg ttaatgaaaa agtattttaa 180
ggtttttcat tgaaagatga attatcagat ttacttttta aaaaatcatt tacgattcat 240
tttttagata gagaaatcaa cagacaaaca gttgaagcat ttggcatgca agtgattact 300
gtatgtatta cacatgagga ttatttaaatt gtgggtttatt catcaagtga agttgaaaaa 360
tacttacaat cacaaggctt cacagaacac aatgaagata caacaagtaa cactgatgaa 420
acatcgaatc aaaatgctac atcttttagac aattcaactg gcatgactgc aaacagaaac 480
gcttatgtgt cattaccaca aagtgaggtt aacattgatg ttgataatac aacggttacga 540
ttcgctgata ataatacgat tgataacggt aaaactgtga ataaatcgag taacgaaagt 600
aatcaaaacg caaaacgtaa tcaaaatcaa aaaggtaatg caaaaggtag acaattcact 660
aagcagtatt taattgataa tattgataaa gcgtacgatt taagaaagaa aatttttaaat 720
gaatttgata aaaaatgttt ttacaaatt tggtag 756

<210> 10
 <211> 753
 <212> DNA
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

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 actgacggta aagttcgcac gtgggggtaac gctaaagacg cgataaataa tgactttaaa 180
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 attagaacac attattatga cgggtgtaact cactttatta gacctaaatt ttcaggtagt 420
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 tacggcacat attatagaaa tgaaaatggc acatttacat gtgggtttttt accaatattt 540
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<210> 11
 <211> 483
 <212> DNA
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 11
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 gatttacaag aggcgtacat tgacacatgg aaacattttg cacatctgcc ctattttcct 180
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 aaaaagcata aatacgcttt atataattta caagctaaaa ataataattc ttcaatgtat 360
 aaatatatta aagaaatcga tactttatat aaagaaattg gtaaatcaga tagaccagt 420

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taa 483

<210> 12
<211> 369
<212> DNA
<213> Staphylococcus aureus Bacteriophage 44 AHJD

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aaagagtata tcgtttagagc attattcaca aacaaagaat caaaattcgg tgaacaaggt 180
gttatcgtca ctgatgacta taacgtaaac ttaccgaacc acttaacaga attaattaaa 240
gaaatgagag cagatgagga cgttggtgac attatcaatg ctggagaagt tcaattcaca 300
atztatgaat atgaaaacaa aaaaggtcaa aaagggttact caatcaattt tgggtcaagta 360
tcatttttaa 369

<210> 13
<211> 423
<212> DNA
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 13
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atttcaaaag caattaaaaa taataactta tgggtcaaaaa aatcaatgag aggattttct 180
aaaaaattat tgatattctg tattatcatt ttagcaaaca tcattgacca gattttacaa 240
ttaaaggtg gtctactcat gattacaata ttttattata ttgcaaata gggactttct 300
attgtagaaa attgtgcaga aatggacgta ttagtaccag aacaaattaa agataaatta 360
agagtcatta aaaatgatac tgaaaagagt gataacaatg aacgatcaag agaagataga 420
taa 423

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tag 243

<210> 17
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<212> DNA
<213> Staphylococcus aureus Bacteriophage 44 AHJD

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caagcaaaag aattattacc agacacatgt aaactattgt ccactacacg cacaacgaaa 180
acaattcaag tttattacaa tgatttacta caaatcgcaa ttgcagaaag caataa 237

<210> 18
<211> 222
<212> DNA
<213> Staphylococcus aureus Bacteriophage 44 AHJD

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gtatctataa tgagcaaggt acaatatcga tatatccgtc taaaactgaa attgtatgtg 180
gtaatgtata tgatgaatat tttactgatg aacttaatat ga 222

<210> 19
<211> 213
<212> DNA
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 19
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ttaatcttag ggaataaata tttatttaca aatgtttcga acattgtatt tgaattatcc 180
catttgctgc caaatgtcca agattttgaa taa 213

<210> 20
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 <213> Staphylococcus aureus Bacteriophage 44 AHJD

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 tttggcttga ctgatttacc actaattggg ttatgggtctc cgtcatcatc agtaggatta 180
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<210> 21
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<400> 21
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 tttcttttaa 189

<210> 22
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<400> 22
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 taa 183

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<210> 23
 <211> 144
 <212> DNA
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

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 aacattaata caaataaaaa gtag 144

<210> 24
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<210> 25
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 <212> DNA
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 tccatttcag acgtatgtct aaccaatggt atcaacctcc atataaagca taaataa 177

<210> 26
 <211> 177
 <212> DNA
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 26
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 tataacctgt tcactaaaaa atacgcgtat atcatagaat acattaagga gatataa 177

<210> 27
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 <212> DNA
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

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 ttctatatta tctttttaac ggttatttat gcttttatat gaggttga 168

<210> 28
 <211> 165
 <212> DNA
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

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<210> 29
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 <213> Staphylococcus aureus Bacteriophage 44 AHJD

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 gttgtccagc ttgttttgat tgtgatacta actttcttgc tatga 165

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 aaatttgtaa atcagataga ccagtga 147

<210> 36
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<210> 37
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<210> 58
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<210> 59
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<210> 63
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<210> 75
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Ile	Thr	Lys	Ser	Lys	Thr	Asp	Ile	Ile	Met	Ile	Ala	His	Asn	Cys	Asn
				85					90					95	
Lys	Tyr	Asp	Asn	His	Phe	Leu	Leu	Lys	Asp	Thr	Met	Arg	Tyr	Phe	Asp
			100					105					110		
Asn	Ile	Thr	Arg	Glu	Asn	Ile	Tyr	Leu	Lys	Ser	Ala	Glu	Glu	Asn	Glu
		115					120					125			
His	Thr	Leu	Lys	Met	Lys	Glu	Ala	Thr	Ile	Leu	Ala	Lys	Asn	Gln	Asn
	130					135					140				
Val	Ile	Leu	Glu	Lys	Arg	Val	Lys	Ser	Ser	Ile	Asn	Leu	Asp	Leu	Thr
145					150					155					160
Met	Phe	Leu	Asn	Gly	Phe	Lys	Phe	Asn	Ile	Ile	Asp	Asn	Phe	Met	Lys
				165					170					175	
Thr	Asn	Thr	Ser	Ile	Ala	Thr	Leu	Gly	Lys	Lys	Leu	Leu	Asp	Gly	Gly
			180					185					190		
Tyr	Leu	Thr	Glu	Ser	Gln	Leu	Lys	Thr	Asp	Phe	Asn	Tyr	Thr	Ile	Phe
		195					200					205			
Asp	Lys	Asp	Asn	Asp	Met	Asn	Asp	Ser	Glu	Ala	Tyr	Asp	Tyr	Ala	Val
	210					215					220				
Lys	Cys	Phe	Ala	Lys	Leu	Thr	Pro	Glu	Gln	Leu	Thr	Tyr	Ile	His	Asn
225					230					235					240

Asp	Val	Ile	Ile	Leu	Gly	Met	Cys	His	Ile	His	Tyr	Ser	Asp	Ile	Phe	245	250	255
Pro	Asn	Phe	Asp	Tyr	Asn	Lys	Leu	Thr	Phe	Ser	Leu	Asn	Ile	Met	Glu	260	265	270
Ser	Tyr	Leu	Asn	Asn	Glu	Met	Thr	Arg	Phe	Gln	Leu	Leu	Asn	Gln	Tyr	275	280	285
Gln	Asp	Ile	Lys	Ile	Ser	Tyr	Thr	His	Tyr	His	Phe	His	Asp	Met	Asn	290	295	300
Phe	Tyr	Asp	Tyr	Ile	Lys	Ser	Phe	Tyr	Arg	Gly	Gly	Leu	Asn	Met	Tyr	305	310	315
Asn	Thr	Lys	Tyr	Ile	Asn	Lys	Leu	Ile	Asp	Glu	Pro	Cys	Phe	Ser	Ile	325	330	335
Asp	Ile	Asn	Ser	Ser	Tyr	Pro	Tyr	Val	Met	Tyr	His	Glu	Lys	Ile	Pro	340	345	350
Thr	Trp	Leu	Tyr	Phe	Tyr	Glu	His	Tyr	Ser	Glu	Pro	Thr	Leu	Ile	Pro	355	360	365
Thr	Phe	Leu	Asp	Asp	Asp	Asn	Tyr	Phe	Ser	Leu	Tyr	Lys	Ile	Asp	Lys	370	375	380
Asp	Val	Phe	Asn	Asp	Asp	Leu	Leu	Ile	Lys	Ile	Lys	Ser	Arg	Val	Leu	385	390	395
Arg	Gln	Met	Ile	Val	Lys	Tyr	Tyr	Asn	Asn	Asp	Asn	Asp	Tyr	Val	Asn	405	410	415
Ile	Asn	Thr	Asn	Thr	Leu	Arg	Met	Ile	Gln	Asp	Ile	Thr	Gly	Ile	Asp	420	425	430
Cys	Met	His	Ile	Arg	Val	Asn	Ser	Phe	Val	Ile	Tyr	Glu	Cys	Glu	Tyr	435	440	445
Phe	His	Ala	Arg	Asp	Ile	Ile	Phe	Gln	Asn	Tyr	Phe	Ile	Lys	Thr	Gln	450	455	460
Gly	Lys	Leu	Lys	Asn	Lys	Ile	Asn	Met	Thr	Ser	Pro	Tyr	Asp	Tyr	His	465	470	475
Ile	Thr	Asp	Asp	Ile	Asn	Glu	His	Pro	Tyr	Ser	Asn	Glu	Glu	Val	Met	485	490	495
Leu	Ser	Lys	Val	Val	Leu	Asn	Gly	Leu	Tyr	Gly	Ile	Pro	Ala	Leu	Arg	500	505	510

Ser	His	Phe	Asn	Leu	Phe	Arg	Leu	Asp	Asp	Asn	Asn	Glu	Leu	Tyr	Asn	
		515					520					525				
Ile	Ile	Asn	Gly	Tyr	Lys	Asn	Thr	Glu	Arg	Asn	Ile	Leu	Phe	Ser	Thr	
		530				535					540					
Phe	Val	Thr	Ser	Arg	Ser	Leu	Tyr	Asn	Leu	Leu	Val	Pro	Phe	Gln	Tyr	
545					550					555					560	
Leu	Thr	Glu	Ser	Glu	Ile	Asp	Asp	Asn	Phe	Ile	Tyr	Cys	Asp	Thr	Asp	
				565					570					575		
Ser	Leu	Tyr	Met	Lys	Ser	Val	Val	Lys	Pro	Leu	Leu	Asn	Pro	Ser	Leu	
			580					585					590			
Phe	Asp	Pro	Ile	Ala	Leu	Gly	Lys	Trp	Asp	Ile	Glu	Asn	Glu	Gln	Ile	
		595					600					605				
Asp	Lys	Met	Phe	Val	Leu	Asn	His	Lys	Lys	Tyr	Ala	Tyr	Glu	Val	Asn	
	610					615					620					
Gly	Lys	Ile	Lys	Ile	Ala	Ser	Ala	Gly	Ile	Pro	Lys	Asn	Ala	Phe	Asp	
625					630					635					640	
Thr	Ser	Val	Asp	Phe	Glu	Thr	Phe	Val	Arg	Glu	Gln	Phe	Phe	Asp	Gly	
				645					650					655		
Ala	Ile	Ile	Glu	Asn	Asn	Lys	Ser	Ile	Tyr	Asn	Glu	Gln	Gly	Thr	Ile	
			660					665					670			
Ser	Ile	Tyr	Pro	Ser	Lys	Thr	Glu	Ile	Val	Cys	Gly	Asn	Val	Tyr	Asp	
		675					680					685				
Glu	Tyr	Phe	Thr	Asp	Glu	Leu	Asn	Met	Lys	Arg	Glu	Phe	Ile	Leu	Lys	
	690					695					700					
Asp	Ala	Arg	Glu	Asn	Phe	Asp	His	Ser	Gln	Phe	Asp	Asp	Ile	Leu	Tyr	
705					710					715					720	
Ile	Glu	Ser	Asp	Ile	Gly	Ser	Phe	Ser	Leu	Asn	Asp	Leu	Phe	Pro	Val	
				725					730					735		
Glu	Arg	Ser	Val	His	Asn	Lys	Ser	Asp	Leu	His	Ile	Leu	Lys	Arg	Glu	
			740					745					750			
His	Asp	Glu	Ile	Lys	Lys	Gly	Asn	Cys								
		755					760									

[illegible]

Met Ala Tyr Asn Glu Asn Asp Phe Lys Tyr Phe Asp Asp Ile Arg Pro
1 5 10 15

Asp Asp Arg Ala Asp Tyr Asn Thr Asn Ser Lys Ser Tyr Tyr Asp Tyr
35 40 45

Asp Tyr Asp Asn Glu Leu Lys Lys Arg Phe Lys Asn Trp Asp Asp Leu
65 70 75 80

Asn Asp Gly Thr Ile Asp Ser Ile Ile His Asp Glu Phe Lys Lys Tyr
100 105 110

Lys Gln Met Asn Asp Phe Lys Ser Glu Val Lys Asp Leu Ile Lys Asp
130 135 140

Phe Val Met Gly Phe Gly Gly Ile Arg Asn Ala Val Asn Gln Ser Ile
165 170 175

Gln Lys Pro Glu Gly Phe Trp Ile Asn Lys Leu Thr Pro Ser Gly Asp
195 200 205

Gly Leu Glu Arg Gln Ser Asn Gly Glu Met Lys Ile Trp Leu His His
225 230 235 240

Val Gln Glu Leu Thr Arg Phe Ser Thr Gly Arg Lys Met Val Lys Met
515 520 525

Val Arg Gly Met Thr Leu Asp Val Phe Thr Leu Lys Trp Asp Tyr Gly
530 535 540

Leu Trp Thr Thr Ile Lys Thr Asp Ala Pro Tyr Gln Glu Tyr Leu Glu
545 550 555 560

Ala Ser Gln Tyr Asn Asn Trp Ile Ala Tyr Val Thr Thr Ala Gly Glu
565 570 575

Tyr Tyr Ile Thr Gly Asn Gln Met Glu Leu Phe Arg Asp Ala Pro Glu
580 585 590

Glu Ile Lys Lys Val Gly Ala Trp Leu Arg Val Ser Ser Gly Asn Ala
595 600 605

Val Gly Glu Val Arg Gln Thr Leu Glu Ala Asn Ile Ser Glu Tyr Lys
610 615 620

Glu Phe Phe Ser Asn Val Asn Ala Glu Thr Lys His Arg Glu Tyr Gly
625 630 635 640

Trp Val Ala Lys His Gln Lys
645

<210> 77

<211> 587

<212> PRT

<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 77

Met Arg Lys Leu Thr Asn Phe Lys Phe Phe Tyr Asn Thr Pro Phe Thr
1 5 10 15

Asp Tyr Gln Asn Thr Ile His Phe Asn Ser Asn Lys Glu Arg Asp Asp
20 25 30

Tyr Phe Leu Asn Gly Arg His Phe Lys Ser Leu Asp Tyr Ser Lys Gln
35 40 45

Pro Tyr Asn Phe Ile Arg Asp Arg Met Glu Ile Asn Val Asp Met Gln
50 55 60

Trp His Asp Ala Gln Gly Ile Asn Tyr Met Thr Phe Leu Ser Asp Phe
65 70 75 80

Glu Asp Arg Arg Tyr Tyr Ala Phe Val Asn Gln Ile Glu Tyr Val Asn
85 90 95

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Asp	Val	Val	Val	Lys	Ile	Tyr	Phe	Val	Ile	Asp	Thr	Ile	Met	Thr	Tyr	
			100					105					110			
Thr	Gln	Gly	Asn	Val	Leu	Glu	Gln	Leu	Ser	Asn	Val	Asn	Ile	Glu	Arg	
		115					120					125				
Gln	His	Leu	Ser	Lys	Arg	Thr	Tyr	Asn	Tyr	Met	Leu	Pro	Met	Leu	Arg	
	130					135					140					
Asn	Asn	Asp	Asp	Val	Leu	Lys	Val	Ser	Asn	Lys	Asn	Tyr	Val	Tyr	Asn	
145					150					155					160	
Gln	Met	Gln	Gln	Tyr	Leu	Glu	Asn	Leu	Val	Leu	Phe	Gln	Ser	Ser	Ala	
				165					170					175		
Asp	Leu	Ser	Lys	Lys	Phe	Gly	Thr	Lys	Lys	Glu	Pro	Asn	Leu	Asp	Thr	
			180					185					190			
Ser	Lys	Gly	Thr	Ile	Tyr	Asp	Asn	Ile	Thr	Ser	Pro	Val	Asn	Leu	Tyr	
		195					200					205				
Val	Met	Glu	Tyr	Gly	Asp	Phe	Ile	Asn	Phe	Met	Asp	Lys	Met	Ser	Ala	
	210					215					220					
Tyr	Pro	Trp	Ile	Thr	Gln	Asn	Phe	Gln	Lys	Val	Gln	Met	Leu	Pro	Lys	
225					230					235					240	
Asp	Phe	Ile	Asn	Thr	Lys	Asp	Leu	Glu	Asp	Val	Lys	Thr	Ser	Glu	Lys	
				245					250					255		
Ile	Thr	Gly	Leu	Lys	Thr	Leu	Lys	Gln	Gly	Gly	Lys	Ser	Lys	Glu	Trp	
			260					265					270			
Ser	Leu	Lys	Asp	Leu	Ser	Leu	Ser	Phe	Ser	Asn	Leu	Gln	Glu	Met	Met	
		275					280					285				
Leu	Ser	Lys	Lys	Asp	Glu	Phe	Lys	His	Met	Ile	Arg	Asn	Glu	Tyr	Met	
	290					295					300					
Thr	Ile	Glu	Phe	Tyr	Asp	Trp	Asn	Gly	Asn	Thr	Met	Leu	Leu	Asp	Ala	
305					310					315					320	
Gly	Lys	Ile	Ser	Gln	Lys	Thr	Gly	Val	Lys	Leu	Arg	Thr	Lys	Ser	Ile	
				325					330					335		
Ile	Gly	Tyr	His	Asn	Glu	Val	Arg	Val	Tyr	Pro	Val	Asp	Tyr	Asn	Ser	
			340					345					350			
Ala	Glu	Asn	Asp	Arg	Pro	Ile	Leu	Ala	Lys	Asn	Lys	Glu	Ile	Leu	Ile	
		355					360					365				

Asp Thr Gly Ser Phe Leu Asn Thr Asn Ile Thr Phe Asn Ser Phe Ala
370 375 380

Gln Val Pro Ile Leu Ile Asn Asn Gly Ile Leu Gly Gln Ser Gln Gln
385 390 395 400

Ala Asn Arg Gln Lys Asn Ala Glu Ser Gln Leu Ile Thr Asn Arg Ile
405 410 415

Asp Asn Val Leu Asn Gly Ser Asp Pro Lys Ser Arg Phe Tyr Asp Ala
420 425 430

Val Ser Val Ala Ser Asn Leu Ser Pro Thr Ala Leu Phe Gly Lys Phe
435 440 445

Asn Glu Glu Tyr Asn Phe Tyr Lys Gln Gln Gln Ala Glu Tyr Lys Asp
450 455 460

Leu Ala Leu Gln Pro Pro Ser Val Thr Glu Ser Glu Met Gly Asn Ala
465 470 475 480

Phe Gln Ile Ala Asn Ser Ile Asn Gly Leu Thr Met Lys Ile Ser Val
485 490 495

Pro Ser Pro Lys Glu Ile Thr Phe Leu Gln Lys Tyr Tyr Met Leu Phe
500 505 510

Gly Phe Glu Val Asn Asp Tyr Asn Ser Phe Ile Glu Pro Ile Asn Ser
515 520 525

Met Thr Val Cys Asn Tyr Leu Lys Cys Thr Gly Thr Tyr Thr Ile Arg
530 535 540

Asp Ile Asp Pro Met Leu Met Glu Gln Leu Lys Ala Ile Leu Glu Ser
545 550 555 560

Gly Val Arg Phe Trp His Asn Asp Gly Ser Gly Asn Pro Met Leu Gln
565 570 575

Asn Pro Leu Asn Asn Lys Phe Arg Glu Gly Val
580 585

<210> 78
<211> 487
<212> PRT
<213> Staphylococcus aureus Bacteriophage 44 AHJD
<400> 78

Met Ile Leu Lys Arg Val Ile Thr Met Asn Asp Gln Glu Lys Ile Asp
1 5 10 15

Lys	Phe	Thr	His	Ser	Tyr	Ile	Asn	Asp	Asp	Phe	Gly	Leu	Thr	Ile	Asp	20	25	30
Gln	Leu	Val	Pro	Lys	Val	Lys	Gly	Tyr	Gly	Arg	Phe	Asn	Val	Trp	Leu	35	40	45
Gly	Gly	Asn	Glu	Ser	Lys	Ile	Arg	Gln	Val	Leu	Lys	Ala	Val	Lys	Glu	50	55	60
Ile	Gly	Val	Ser	Pro	Thr	Leu	Phe	Ala	Val	Tyr	Glu	Lys	Asn	Glu	Gly	65	70	75
Phe	Ser	Ser	Gly	Leu	Gly	Trp	Leu	Asn	His	Thr	Ser	Ala	Arg	Gly	Asp	85	90	95
Tyr	Leu	Thr	Asp	Ala	Lys	Phe	Ile	Ala	Arg	Lys	Leu	Val	Ser	Gln	Ser	100	105	110
Lys	Gln	Ala	Gly	Gln	Pro	Ser	Trp	Tyr	Asp	Ala	Gly	Asn	Ile	Val	His	115	120	125
Phe	Val	Pro	Gln	Asp	Val	Gln	Arg	Lys	Gly	Asn	Ala	Asp	Phe	Ala	Lys	130	135	140
Asn	Met	Lys	Ala	Gly	Thr	Ile	Gly	Arg	Ala	Tyr	Ile	Pro	Leu	Thr	Ala	145	150	155
Ala	Ala	Thr	Trp	Ala	Ala	Tyr	Tyr	Pro	Leu	Gly	Leu	Lys	Ala	Ser	Tyr	165	170	175
Asn	Lys	Val	Gln	Asn	Tyr	Gly	Asn	Pro	Phe	Leu	Asp	Gly	Ala	Asn	Thr	180	185	190
Ile	Leu	Ala	Trp	Gly	Gly	Lys	Leu	Asp	Gly	Lys	Gly	Gly	Ser	Pro	Ser	195	200	205
Asp	Ser	Ser	Asp	Ser	Gly	Ser	Ser	Gly	Asp	Ser	Gly	Ser	Ser	Leu	Leu	210	215	220
Ala	Leu	Ala	Lys	Gln	Ala	Met	Gln	Glu	Leu	Leu	Lys	Lys	Ile	Gln	Asp	225	230	235
Ala	Leu	Gln	Trp	Asp	Val	His	Ser	Ile	Gly	Ser	Asp	Lys	Phe	Phe	Ser	245	250	255
Asn	Asp	Tyr	Phe	Thr	Leu	Glu	Lys	Thr	Phe	Asn	Asn	Thr	Tyr	His	Ile	260	265	270
Lys	Met	Thr	Ile	Gly	Leu	Leu	Asp	Ser	Leu	Lys	Lys	Leu	Ile	Asp	Ser	275	280	285

Val Gln Val Asp Ser Gly Ser Ser Ser Ser Asn Pro Thr Asp Asp Asp
 290 295 300

Gly Asp His Lys Pro Ile Ser Gly Lys Ser Val Lys Pro Asn Gly Lys
 305 310 315 320

Ser Gly Arg Val Ile Gly Gly Asn Trp Thr Tyr Ala Gln Leu Pro Glu
 325 330 335

Lys Tyr Lys Lys Ala Ile Gly Val Pro Leu Phe Lys Lys Glu Tyr Leu
 340 345 350

Tyr Lys Pro Gly Asn Ile Phe Pro Gln Thr Gly Asn Ala Gly Gln Cys
 355 360 365

Thr Glu Leu Thr Trp Ala Tyr Met Ser Gln Leu His Gly Lys Arg Gln
 370 375 380

Pro Thr Asp Asp Gly Gln Ile Thr Asn Gly Gln Arg Val Trp Tyr Val
 385 390 395 400

Tyr Lys Lys Leu Gly Ala Lys Thr Thr His Asn Pro Thr Val Gly Tyr
 405 410 415

Gly Phe Ser Ser Lys Pro Pro Tyr Leu Gln Ala Thr Ala Tyr Gly Ile
 420 425 430

Gly His Thr Gly Val Val Val Ala Val Phe Glu Asp Gly Ser Phe Leu
 435 440 445

Val Ala Asn Tyr Asn Val Pro Pro Tyr Val Ala Pro Ser Arg Val Val
 450 455 460

Leu Tyr Thr Leu Ile Asn Gly Val Pro Asn Asn Ala Gly Asp Asn Ile
 465 470 475 480

Val Phe Phe Ser Gly Ile Ala
 485

<210> 79
 <211> 415
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 79

Met Val Lys Gln Asn Arg Leu Asp Met Val Arg Asp Tyr Gln Asn Ala
 1 5 10 15

Val Asn His Val Arg Lys Lys Ile Pro Asp Lys Tyr Asn Gln Ile Glu
 20 25 30

Leu Val Asp Glu Leu Met Asn Asp Asp Ile Asp Tyr Tyr Ile Ser Ile
 35 40 45
 Ser Asn Arg Ser Asp Gly Lys Ser Phe Asn Tyr Val Ser Phe Phe Ile
 50 55 60
 Tyr Leu Ala Ile Lys Leu Asp Ile Lys Phe Thr Leu Leu Ser Arg His
 65 70 75 80
 Tyr Thr Leu Arg Asp Ala Tyr Arg Asp Phe Ile Glu Glu Ile Ile Asp
 85 90 95
 Glu Asn Pro Leu Phe Lys Ser Lys Arg Val Thr Phe Arg Ser Ala Arg
 100 105 110
 Asp Tyr Leu Ala Ile Ile Tyr Gln Asp Lys Glu Ile Gly Val Ile Thr
 115 120 125
 Asp Leu Asn Ser Ala Thr Asp Leu Lys Tyr His Ser Asn Phe Leu Lys
 130 135 140
 His Tyr Pro Ile Ile Ile Tyr Asp Glu Phe Leu Ala Leu Glu Asp Asp
 145 150 155 160
 Tyr Leu Ile Asp Glu Trp Asp Lys Leu Lys Thr Ile Tyr Glu Ser Ile
 165 170 175
 Asp Arg Asn His Gly Asn Val Asp Tyr Ile Gly Phe Pro Lys Met Phe
 180 185 190
 Leu Leu Gly Asn Ala Val Asn Phe Ser Ser Pro Ile Leu Ser Asn Leu
 195 200 205
 Asn Ile Tyr Asn Leu Leu Gln Lys His Lys Met Asn Thr Ser Arg Leu
 210 215 220
 Tyr Lys Asn Ile Phe Leu Glu Met Arg Arg Asn Asp Tyr Val Asn Glu
 225 230 235 240
 Lys Arg Asn Thr Arg Ala Phe Asn Ser Asn Asp Asp Ala Met Thr Thr
 245 250 255
 Gly Glu Phe Glu Phe Asn Glu Tyr Asn Leu Ala Asp Asp Asn Leu Arg
 260 265 270
 Asn His Ile Asn Gln Asn Gly Asp Phe Phe Tyr Ile Lys Thr Asp Asp
 275 280 285
 Lys Tyr Ile Lys Val Met Tyr Asn Val Thr Thr Phe Met Thr Asn Ile
 290 295 300

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Ile Val Val Pro Tyr Thr Lys Gln Tyr Glu Phe Cys Thr Lys Ile Arg
305 310 315 320

Asp Ile Asp Asn His Val Thr Tyr Leu Arg Asp Asp Met Phe Tyr Lys
325 330 335

Glu Asn Met Glu Arg Tyr Tyr Tyr Asn Pro Ser Asn Leu His Phe Asp
340 345 350

Asn Ala Tyr Ser Lys Asn Tyr Val Val Asp Asn Asp Arg Tyr Leu Tyr
355 360 365

Leu Asp Met Asn Lys Ile Ile Lys Phe His Ile Lys Asn Glu Met Lys
370 375 380

Lys Asn Met Ser Glu Phe Glu Arg Lys Glu Lys Ile Tyr Glu Asp Asn
385 390 395 400

Tyr Ile Glu Asn Thr Lys Lys Tyr Leu Met Lys Gln Tyr Gly Leu
405 410 415

<210> 80

<211> 408

<212> PRT

<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 80

Met Ala Gln Gln Ser Thr Lys Asn Glu Thr Ala Leu Leu Val Ala Lys
1 5 10 15

Ser Ala Lys Ser Ala Leu Gln Asp Phe Asn His Asp Tyr Ser Lys Ser
20 25 30

Trp Thr Phe Gly Asp Lys Trp Asp Asn Ser Asn Thr Met Phe Glu Thr
35 40 45

Phe Val Asn Lys Tyr Leu Phe Pro Lys Ile Asn Glu Thr Leu Leu Ile
50 55 60

Asp Ile Ala Leu Gly Asn Arg Phe Asn Trp Leu Ala Lys Glu Gln Asp
65 70 75 80

Phe Ile Gly Gln Tyr Ser Glu Glu Tyr Val Ile Met Asp Thr Val Pro
85 90 95

Ile Asn Met Asp Leu Ser Lys Asn Glu Glu Leu Met Leu Lys Arg Asn
100 105 110

Tyr Pro Arg Met Ala Thr Lys Leu Tyr Gly Asn Gly Ile Val Lys Lys
115 120 125

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Gln	Lys	Phe	Thr	Leu	Asn	Asn	Asn	Asp	Thr	Arg	Phe	Asn	Phe	Gln	Thr	130	135	140	
Leu	Ala	Asp	Ala	Thr	Asn	Tyr	Ala	Leu	Gly	Val	Tyr	Lys	Lys	Lys	Ile	145	150	155	160
Ser	Asp	Ile	Asn	Val	Leu	Glu	Glu	Lys	Glu	Met	Arg	Ala	Met	Leu	Val	165	170	175	
Asp	Tyr	Ser	Leu	Asn	Gln	Leu	Ser	Glu	Thr	Asn	Val	Arg	Lys	Ala	Thr	180	185	190	
Ser	Lys	Glu	Asp	Leu	Ala	Ser	Lys	Val	Phe	Glu	Ala	Ile	Leu	Asn	Leu	195	200	205	
Gln	Asn	Asn	Ser	Ala	Lys	Tyr	Asn	Glu	Val	His	Arg	Ala	Ser	Gly	Gly	210	215	220	
Ala	Ile	Gly	Gln	Tyr	Thr	Thr	Val	Ser	Lys	Leu	Lys	Asp	Ile	Val	Ile	225	230	235	240
Leu	Thr	Thr	Asp	Ser	Leu	Lys	Ser	Tyr	Leu	Leu	Asp	Thr	Lys	Ile	Ala	245	250	255	
Asn	Thr	Phe	Gln	Ile	Ala	Gly	Ile	Asp	Phe	Thr	Asp	His	Val	Ile	Ser	260	265	270	
Phe	Asp	Asp	Leu	Gly	Gly	Val	Phe	Lys	Val	Thr	Lys	Glu	Phe	Lys	Leu	275	280	285	
Gln	Asn	Gln	Asp	Ser	Ile	Asp	Phe	Leu	Arg	Ala	Tyr	Gly	Asp	Tyr	Gln	290	295	300	
Ser	Gln	Leu	Gly	Asp	Thr	Ile	Pro	Val	Gly	Ala	Val	Phe	Thr	Tyr	Asp	305	310	315	320
Val	Ser	Lys	Leu	Lys	Glu	Phe	Thr	Gly	Asn	Val	Glu	Glu	Ile	Lys	Pro	325	330	335	
Lys	Ser	Asp	Leu	Tyr	Ala	Phe	Ile	Leu	Asp	Ile	Asn	Ser	Ile	Lys	Tyr	340	345	350	
Lys	Arg	Tyr	Thr	Lys	Gly	Met	Leu	Lys	Pro	Pro	Phe	His	Asn	Pro	Glu	355	360	365	
Phe	Asp	Glu	Val	Thr	His	Trp	Ile	His	Tyr	Tyr	Ser	Phe	Lys	Ala	Ile	370	375	380	
Ser	Pro	Phe	Phe	Asn	Lys	Ile	Leu	Ile	Thr	Asp	Gln	Asp	Val	Asn	Pro	385	390	395	400

Figure 1 displays 12 histograms arranged in a 6x2 grid, showing the distribution of the number of non-zero elements in the vector x for different values of n . The histograms are labeled as follows:

- Top row (left to right): $n=10$, $n=20$, $n=30$, $n=40$, $n=50$, $n=60$
- Bottom row (left to right): $n=70$, $n=80$, $n=90$, $n=100$, $n=110$, $n=120$

The x-axis for all histograms is 'Number of non-zero elements' and the y-axis is 'Frequency'. The distributions are roughly bell-shaped and centered around $n/2$.

Figure 1 consists of 11 sub-graphs, labeled (a) through (k), each showing the percentage of correct responses for different groups of subjects across various conditions. The y-axis for all graphs is 'Percentage of correct responses' ranging from 0 to 100. The x-axis for all graphs is 'Condition'.

- (a) 100%: Shows a single line at 100% for all conditions.
- (b) 100%: Shows a single line at 100% for all conditions.
- (c) 100%: Shows a single line at 100% for all conditions.
- (d) 100%: Shows a single line at 100% for all conditions.
- (e) 100%: Shows a single line at 100% for all conditions.
- (f) 100%: Shows a single line at 100% for all conditions.
- (g) 100%: Shows a single line at 100% for all conditions.
- (h) 100%: Shows a single line at 100% for all conditions.
- (i) 100%: Shows a single line at 100% for all conditions.
- (j) 100%: Shows a single line at 100% for all conditions.
- (k) 100%: Shows a single line at 100% for all conditions.

Figure 1 consists of 11 sub-graphs labeled (a) through (k). Each graph plots a different physiological or behavioral measure over a 10-minute period. The y-axis for all graphs ranges from 0 to 100. The x-axis for all graphs ranges from 0 to 10 minutes. The measures are: (a) Heart rate (b/min), (b) Blood pressure (mmHg), (c) Blood glucose (mmol/L), (d) Blood lactate (mmol/L), (e) Blood glucose (mmol/L), (f) Blood lactate (mmol/L), (g) Blood glucose (mmol/L), (h) Blood lactate (mmol/L), (i) Blood glucose (mmol/L), (j) Blood lactate (mmol/L), and (k) Blood glucose (mmol/L). Each graph shows a baseline period followed by a 10-minute intervention period. The graphs show that heart rate, blood pressure, and blood glucose levels generally increase during the intervention period, while blood lactate levels generally decrease.

Glu His Asn Glu Asp Thr Thr Ser Asn Thr Asp Glu Thr Ser Asn Gln
130 135 140

Asn Ala Thr Ser Leu Asp Asn Ser Thr Gly Met Thr Ala Asn Arg Asn
145 150 155 160

Ala Tyr Val Ser Leu Pro Gln Ser Glu Val Asn Ile Asp Val Asp Asn
165 170 175

Thr Thr Leu Arg Phe Ala Asp Asn Asn Thr Ile Asp Asn Gly Lys Thr
180 185 190

Val Asn Lys Ser Ser Asn Glu Ser Asn Gln Asn Ala Lys Arg Asn Gln
195 200 205

Asn Gln Lys Gly Asn Ala Lys Gly Thr Gln Phe Thr Lys Gln Tyr Leu
210 215 220

Ile Asp Asn Ile Asp Lys Ala Tyr Asp Leu Arg Lys Lys Ile Leu Asn
225 230 235 240

Glu Phe Asp Lys Lys Cys Phe Leu Gln Ile Trp
245 250

<210> 83
<211> 250
<212> PRT
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 83

Met Lys Ser Gln Gln Gln Ala Lys Glu Trp Ile Tyr Lys His Glu Gly
1 5 10 15

Ala Gly Val Asp Phe Asp Gly Ala Tyr Gly Phe Gln Cys Met Asp Leu
20 25 30

Ser Val Ala Tyr Val Tyr Tyr Ile Thr Asp Gly Lys Val Arg Met Trp
35 40 45

Gly Asn Ala Lys Asp Ala Ile Asn Asn Asp Phe Lys Gly Leu Ala Thr
50 55 60

Val Tyr Lys Asn Thr Pro Ser Phe Lys Pro Gln Leu Gly Asp Val Ala
65 70 75 80

Val Tyr Thr Asn Gly Gln Tyr Gly His Ile Gln Cys Val Leu Ser Gly
85 90 95

Asn Leu Asp Tyr Tyr Thr Cys Leu Glu Gln Asn Trp Leu Gly Gly Gly
100 105 110

Phe Asp Gly Trp Glu Lys Ala Thr Ile Arg Thr His Tyr Tyr Asp Gly
115 120 125

Val Thr His Phe Ile Arg Pro Lys Phe Ser Gly Ser Asn Ser Lys Ala
130 135 140

Leu Glu Thr Ser Lys Val Asn Thr Phe Gly Lys Trp Lys Arg Asn Gln
145 150 155 160

Tyr Gly Thr Tyr Tyr Arg Asn Glu Asn Gly Thr Phe Thr Cys Gly Phe
165 170 175

Leu Pro Ile Phe Ala Arg Val Gly Ser Pro Lys Leu Ser Glu Pro Asn
180 185 190

Gly Tyr Trp Phe Gln Pro Asn Gly Tyr Thr Pro Tyr Asn Glu Val Cys
195 200 205

Leu Ser Asp Gly Tyr Val Trp Ile Gly Tyr Asn Trp Gln Gly Thr Arg
210 215 220

Tyr Tyr Leu Pro Val Arg Gln Trp Asn Gly Lys Thr Gly Asn Ser Tyr
225 230 235 240

Ser Val Gly Ile Pro Trp Gly Val Phe Ser
245 250

<210> 84
<211> 160
<212> PRT
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 84

Leu Val Arg His Thr Ser Glu Met Asp Arg Trp Lys Lys Glu Arg Glu
1 5 10 15

Ala Arg Lys Glu Gln Glu Lys Asp Leu Phe Leu Asn Asp Phe Ser Asn
20 25 30

Val Asn Phe Lys Phe Asp Asp Lys Asp Leu Gln Glu Ala Tyr Ile Asp
35 40 45

Thr Trp Lys His Phe Ala His Leu Pro Tyr Phe Pro Lys Glu Arg Asn
50 55 60

Val Ser Tyr Val Asn Ala Val Ser Leu Val Arg Gly Ser Arg His Lys
65 70 75 80

Lys Leu Asn Tyr Ile Leu Glu Ile Tyr Asn Arg Asn Asp Asp Ser Asn
85 90 95

Asn Lys Asn Ala Lys Lys His Lys Tyr Ala Leu Tyr Asn Leu Gln Ala
 100 105 110

Lys Asn Asn Asn Ser Ser Met Tyr Lys Tyr Ile Lys Glu Ile Asp Thr
 115 120 125

Leu Tyr Lys Glu Ile Gly Lys Ser Asp Arg Pro Val Thr Asn Ile Asp
 130 135 140

Asp Glu Asp Val Arg Tyr Asn Phe Leu Tyr Tyr Ala Thr Phe Asp Glu
 145 150 155 160

<210> 85
 <211> 122
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD
 <400> 85

Met Thr Asn Val Lys Asp Ile Leu Ser Arg His Gln Asn Thr Leu Ala
 1 5 10 15

Arg Phe Glu Phe Glu Glu Lys Glu Arg Glu Phe Ile Lys Leu Ser Glu
 20 25 30

Leu Val Glu Lys Tyr Gly Met Lys Lys Glu Tyr Ile Val Arg Ala Leu
 35 40 45

Phe Thr Asn Lys Glu Ser Lys Phe Gly Glu Gln Gly Val Ile Val Thr
 50 55 60

Asp Asp Tyr Asn Val Asn Leu Pro Asn His Leu Thr Glu Leu Ile Lys
 65 70 75 80

Glu Met Arg Ala Asp Glu Asp Val Val Asp Ile Ile Asn Ala Gly Glu
 85 90 95

Val Gln Phe Thr Ile Tyr Glu Tyr Glu Asn Lys Lys Gly Gln Lys Gly
 100 105 110

Tyr Ser Ile Asn Phe Gly Gln Val Ser Phe
 115 120

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<210> 86
 <211> 140
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 86

Met Asn Glu Val Lys Phe Arg Phe Thr Asp Ser Glu Ala Phe His Met
 1 5 10 15

Phe Ile Tyr Ala Gly Asp Leu Lys Leu Leu Tyr Phe Leu Phe Val Leu
 20 25 30

Met Phe Val Asp Ile Ile Thr Gly Ile Ser Lys Ala Ile Lys Asn Asn
 35 40 45

Asn Leu Trp Ser Lys Lys Ser Met Arg Gly Phe Ser Lys Lys Leu Leu
 50 55 60

Ile Phe Cys Ile Ile Ile Leu Ala Asn Ile Ile Asp Gln Ile Leu Gln
 65 70 75 80

Leu Lys Gly Gly Leu Leu Met Ile Thr Ile Phe Tyr Tyr Ile Ala Asn
 85 90 95

Glu Gly Leu Ser Ile Val Glu Asn Cys Ala Glu Met Asp Val Leu Val
 100 105 110

Pro Glu Gln Ile Lys Asp Lys Leu Arg Val Ile Lys Asn Asp Thr Glu
 115 120 125

Lys Ser Asp Asn Asn Glu Arg Ser Arg Glu Asp Arg
 130 135 140

<210> 87
 <211> 136
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 87

Met Lys Ile Lys Thr Thr Phe Arg Leu Asn Asn Leu Ile Tyr Tyr Leu
 1 5 10 15

Leu Thr Asn Arg Asp Tyr Tyr Asn Asp Lys Phe Glu Lys Phe Thr Ser
 20 25 30

Ser Asn Lys Lys Cys Ile Val Lys Ile Asn Met Gly Asp Val Tyr Ile
 35 40 45

Glu Phe Asp Lys Gln Tyr Asp Asp Phe Glu Ile Glu Lys Glu Leu Phe
 50 55 60

Asn Ala Leu Thr Ile Tyr Ser Phe Phe Ile Pro Tyr Phe Ser Thr Asn
20 25 30

Ser Asp Ser Leu Ile Asn Ser Leu Ser Phe Ser Ser Asn Ser Asn Leu
35 40 45

Ala Asn Val Phe Trp Cys Leu Asp Lys Ile Ser Phe Thr Phe Val Ile
50 55 60

Leu Phe Leu Leu Leu Phe Lys Leu Phe Ala Phe Cys Asn Cys Asp Leu
65 70 75 80

<210> 90

<211> 78

<212> PRT

<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 90

Met Lys Val Asp Asp Ile Val Thr Leu Arg Val Lys Gly Tyr Ile Leu
1 5 10 15

His Tyr Leu Asp Asp Asp Asn Glu Tyr Ile Glu Glu Phe Leu Pro Leu
20 25 30

His Glu Tyr His Leu Thr Lys Thr Gln Ala Lys Glu Leu Leu Pro Asp
35 40 45

Thr Cys Lys Leu Leu Ser Thr Thr Arg Thr Thr Lys Thr Ile Gln Val
50 55 60

Tyr Tyr Asn Asp Leu Leu Gln Ile Ala Ile Ala Glu Ser Lys
65 70 75

<210> 91

<211> 73

<212> PRT

<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 91

Met Glu Arg Leu Lys Leu Leu Leu Leu Val Tyr Arg Lys Thr Pro Leu
1 5 10 15

Ile Gln Ala Ser Ile Leu Lys Pro Leu Tyr Val Asn Asn Ser Leu Thr
20 25 30

Val Pro Leu Leu Lys Thr Ile Lys Val Ser Ile Met Ser Lys Val Gln
35 40 45

Tyr Arg Tyr Ile Arg Leu Lys Leu Lys Leu Tyr Val Val Met Tyr Met
50 55 60

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Met Asn Ile Leu Leu Met Asn Leu Ile
65 70

<210> 92
<211> 70
<212> PRT
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 92

Met Leu Ile Gly Thr Val Ser Ile Ile Thr Tyr Ser Ser Leu Tyr Cys
1 5 10 15

Pro Ile Lys Ser Cys Ser Leu Ala Asn Gln Leu Lys Arg Leu Pro Asn
20 25 30

Ala Ile Ser Ile Asn Lys Val Ser Leu Ile Leu Gly Asn Lys Tyr Leu
35 40 45

Phe Thr Asn Val Ser Asn Ile Val Phe Glu Leu Ser His Leu Ser Pro
50 55 60

Asn Val Gln Asp Phe Glu
65 70

<210> 93
<211> 68
<212> PRT
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 93

Met Leu Pro Gly Leu Tyr Lys Tyr Ser Phe Leu Asn Lys Gly Thr Pro
1 5 10 15

Ile Ala Phe Leu Tyr Phe Ser Gly Asn Cys Ala Tyr Val Gln Leu Pro
20 25 30

Pro Ile Thr Arg Pro Leu Phe Pro Phe Gly Leu Thr Asp Leu Pro Leu
35 40 45

Ile Gly Leu Trp Ser Pro Ser Ser Val Gly Leu Glu Leu Leu Leu
50 55 60

Pro Leu Ser Thr
65

<210> 94
 <211> 62
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 94

Met	Ser	Lys	Arg	Phe	Cys	Phe	Thr	Met	Phe	Leu	Leu	Leu	Val	Ile	Val
1				5					10					15	
Tyr	Asp	Val	Val	Tyr	Ser	Val	Lys	Phe	Ile	Arg	Gln	Met	Leu	His	Asn
			20					25					30		
Ile	Lys	Ser	Tyr	Thr	Ser	His	Leu	His	His	Gln	Tyr	Leu	Ser	Leu	Val
		35					40					45			
Tyr	Leu	Ile	Tyr	Gln	Phe	Leu	Tyr	Ile	Lys	Tyr	Arg	Phe	Leu		
	50					55					60				

<210> 95
 <211> 60
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 95

Met	His	His	Gln	Ser	Gln	His	Leu	Pro	Pro	His	Ala	Tyr	Ile	Ser	Ile
1				5					10					15	
Leu	Leu	Leu	Val	Val	Val	Ile	Ser	Phe	Ile	Ser	Leu	Leu	Phe	Leu	Met
			20					25					30		
Phe	Cys	Tyr	Pro	Thr	Ile	Phe	Thr	Met	Phe	Cys	Phe	Arg	Ile	Asn	Ile
		35					40					45			
Thr	Glu	Glu	Phe	Phe	Ile	Phe	Arg	Tyr	Ile	Ser	Leu				
	50					55					60				

<210> 96
 <211> 47
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 96

Met	Phe	Ala	Lys	Met	Ile	Ile	Gln	Asn	Ile	Asn	Asn	Phe	Leu	Glu	Asn
1				5					10					15	
Pro	Leu	Ile	Asp	Phe	Phe	Asp	His	Lys	Leu	Leu	Phe	Leu	Ile	Ala	Phe
			20					25					30		

<210> 102
 <211> 54
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 102

Met Glu Tyr Met His Val Gln Leu Tyr Leu Leu Ser Tyr Phe Leu Gln
 1 5 10 15

Asn Leu His Tyr Leu Phe Phe Val Arg Leu Val Val Gln Ser Gly Arg
 20 25 30

Cys Tyr Leu Arg His Thr Lys Thr Val Val Gln Leu Val Leu Ile Val
 35 40 45

Ile Leu Thr Phe Leu Leu
 50

<210> 103
 <211> 54
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 103

Val Phe Lys Trp Asn Val Asn Thr Lys Arg Tyr Tyr Tyr Ile Ala Met
 1 5 10 15

Arg Leu Lys Asp Ile Phe His Ile Lys Ser Gln Cys Leu Lys Ile Tyr
 20 25 30

Met Thr Leu Lys Leu Tyr Ile His Ile Met Asn Ile Thr Cys Ser Leu
 35 40 45

Lys Asn Thr Arg Ile Ser
 50

<210> 104
 <211> 53
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 104

Val Asn Lys Thr Pro Asn Asp Thr Arg Ile Cys Ser Val Ile Ser Met
 1 5 10 15

Ile Ser Val Ile Lys Asn Ala Lys Arg Lys Thr Met Ala Met Phe Asn
 20 25 30

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Glu Ile Pro Val Ile Ile Ser Thr Asn Ile Asn Thr Asn Lys Lys
 35 40 45

<210> 97
 <211> 59
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD
 <400> 97

Met Arg Thr Pro Pro Lys Glu Tyr Gln His Cys Asn Tyr Tyr Leu Phe
 1 5 10 15

Phe His Ser Ile Gly Ala Leu Val Asn Asn Asn Val Cys Leu Ala Ser
 20 25 30

Tyr Asn Gln Ser Ile Arg Asn His Leu Ile Asn Lys Leu Arg Tyr Met
 35 40 45

Val Tyr Asn Arg Leu Val Gly Thr Asn Ser His
 50 55

<210> 98
 <211> 58
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD
 <400> 98

Val Ser Met Tyr Ala Ser Cys Lys Ser Leu Ser Ser Asn Leu Lys Leu
 1 5 10 15

Thr Leu Leu Lys Ser Phe Lys Asn Lys Ser Phe Ser Cys Ser Phe Leu
 20 25 30

Ala Ser Leu Ser Phe Phe His Leu Ser Ile Ser Asp Val Cys Leu Thr
 35 40 45

Asn Val Ile Asn Leu His Ile Lys His Lys
 50 55

<210> 99
 <211> 58
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD
 <400> 99

Met Glu Arg Lys Tyr Lys Thr Val Leu Leu Tyr Cys Asp Glu Ile Lys
 1 5 10 15

Arg Leu Phe Met Val Asn His Phe Pro Ile Ile Val Tyr Asp Phe Val
 35 40 45

Leu Ile Asn Asn His
 50

<210> 105

<211> 50

<212> PRT

<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 105

Met Ile Leu Tyr Ser Ser Leu Leu Ser Ser Lys Arg Asn Lys Leu Lys
 1 5 10 15

Cys Glu Arg Asn Ala Gly Met Pro Tyr Asn Pro Phe Lys Thr Thr Leu
 20 25 30

Asp Asn Ile Thr Ser Ser Phe Glu Tyr Gly Cys Ser Leu Ile Ser Ser
 35 40 45

Val Met
 50

<210> 106

<211> 49

<212> PRT

<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 106

Met Ala Cys Phe Ala Lys Ala Ser Ser Glu Leu Pro Leu Ser Pro Leu
 1 5 10 15

Leu Pro Leu Ser Asp Glu Ser Leu Gly Asp Pro Pro Leu Pro Ser Asn
 20 25 30

Leu Pro Pro Gln Ala Arg Ile Val Phe Ala Pro Ser Lys Asn Gly Leu
 35 40 45

Pro

<210> 107
 <211> 49
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 107

Met Pro Leu Phe Asn His Leu Tyr Gln Ile Cys Lys Lys His Phe Leu
 1 5 10 15

Ser Asn Ser Phe Lys Ile Phe Phe Leu Lys Ser Tyr Ala Leu Ser Ile
 20 25 30

Leu Ser Ile Lys Tyr Cys Leu Val Asn Cys Val Pro Phe Ala Leu Pro
 35 40 45

Phe

<210> 108
 <211> 48
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 108

Met Met Ile Leu Ile Ile Lys Thr Leu Lys Ser Ile Asn Thr Leu Tyr
 1 5 10 15

Ile Ile Tyr Lys Leu Lys Ile Ile Ile Leu Gln Cys Ile Asn Ile Leu
 20 25 30

Lys Lys Ser Ile Leu Tyr Ile Lys Lys Leu Val Asn Gln Ile Asp Gln
 35 40 45

<210> 109
 <211> 48
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 109

Met Gln His Leu Thr Asn Lys Phe Asn Thr Val Asn Asp Ile Ile Asn
 1 5 10 15

Tyr Tyr Lys Glu Gln Lys His Gly Lys Thr Lys Ser Phe Arg His Gly
 20 25 30

Lys Arg Leu Ser Lys Cys Cys Gln Ser Cys Gln Lys Lys Asn Pro Arg
 35 40 45

<210> 110
 <211> 48
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 110

Val Tyr Thr Ile Pro His Val Met Val Gln His Met Val Val His Tyr
 1 5 10 15

Ser Leu Gln Leu Lys Thr Asn His Leu Gln Lys Leu Leu Gln Gln His
 20 25 30

Leu Cys Asp Gln Tyr His Met Gln Leu Leu Val Ser Met Val Val Tyr
 35 40 45

<210> 111
 <211> 47
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 111

Met Ser Ile Ser Asn Val Asn Asn Ser Phe Ser Ile Ser Lys Ser Ser
 1 5 10 15

Tyr Cys Leu Ser Asn Ser Ile Tyr Thr Ser Pro Ile Phe Ile Phe Thr
 20 25 30

Ile His Phe Leu Leu Asp Glu Val Asn Phe Ser Asn Leu Ser Leu
 35 40 45

<210> 112
 <211> 47
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 112

Val Tyr Leu Leu His Tyr Leu Phe Asp Phe Asp Tyr Val Leu Arg Phe
 1 5 10 15

Asp Tyr Phe Arg Tyr Ser Ile Tyr Ser Gln Phe Tyr Arg Tyr Gln Ser
 20 25 30

Tyr Tyr Tyr Gln Arg Ile Val Thr Leu Tyr Tyr Gln His Gln Cys
 35 40 45

<210> 113
 <211> 46
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 113

Val Leu Tyr Leu Leu Met Met Tyr Leu Asn Leu Lys Ser Leu Leu Ala
 1 5 10 15

Thr Leu Lys Lys Leu Asn Gln Asn Gln Ile Tyr Met Arg Leu Phe Trp
 20 25 30

Ile Leu Ile Gln Leu Asn Ile Asn Val Thr Gln Lys Val Cys
 35 40 45

<210> 114
 <211> 45
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 114

Val Val Thr Gly His Met His Ser Tyr Gln Lys Asn Ile Lys Lys Gln
 1 5 10 15

Leu Val Tyr Leu Tyr Ser Lys Lys Asn Thr Tyr Thr Asn Gln Val Thr
 20 25 30

Tyr Phe Leu Lys Arg Val Met Gln Asp Asn Val Gln Asn
 35 40 45

<210> 115
 <211> 45
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 115

Met Ser Ser Thr Phe Ile Ile Ile Ser Leu Leu Ser Lys Lys Arg Lys
 1 5 10 15

Arg Tyr Thr Phe His Lys Ile Leu Tyr Ala Tyr Ser Ile Val Leu Leu
 20 25 30

Gly His His Gln Gln Tyr Lys Thr Ile Leu Ile Leu Val
 35 40 45

<210> 116
 <211> 45
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 116

Met His Asp Arg Arg Leu Leu Leu Ile Tyr Ser Phe Val Asn Leu Leu
 1 5 10 15

Arg Val Met Leu Gln Ser Val His Thr His Gln Val Gly Arg Asn His
 20 25 30

Ile Asn Tyr Gly Asn Val Phe His His Arg Arg Leu Ser
 35 40 45

<210> 117
 <211> 45
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 117

Met Arg Leu Val Thr Val Leu Gln His His Arg Asp Val Thr Arg Phe
 1 5 10 15

Ser Phe His His Trp Ile Asp Val Leu Ile Arg Leu Leu Tyr His Asp
 20 25 30

His Pro Val Gln Tyr Ala Cys Leu Lys Leu Ser His His
 35 40 45

<210> 118
 <211> 44
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 118

Met Leu Pro Ile Tyr Val Met Ile Cys Phe Ile Lys Lys Thr Trp Asn
 1 5 10 15

Val Ile Thr Thr Ile Gln Ala Ile Tyr Ile Leu Thr Met Leu Thr Leu
 20 25 30

Lys Ile Thr Trp Leu Ile Met Ile Asp Ile Tyr Ile
 35 40

<210> 119
 <211> 42
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 119

Met Ala Pro Ser Lys Asn Cys Ser Arg Thr Lys Val Ser Lys Ser Thr
 1 5 10 15

Leu Val Ser Lys Ala Phe Phe Gly Ile Pro Ala Glu Ala Ile Leu Ile
 20 25 30

Phe Pro Phe Thr Ser Tyr Ala Tyr Phe Leu
 35 40

<210> 120
 <211> 42
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 120

Met Ile Ile His Leu Ser Tyr His Ile Lys Thr Val Leu Ile Ser His
 1 5 10 15

Val Ile Thr Leu Lys Ser Leu Arg Val Phe Ala Phe Ile Gln Ile Gln
 20 25 30

Lys Gln Asn Val Asn Arg Tyr Tyr Leu Leu
 35 40

<210> 121
 <211> 42
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 121

Met Asn Val Cys Lys Leu Phe Arg Cys Glu Phe Cys Lys Thr Phe His
 1 5 10 15

Ser Ile Val Ile Gly Phe Thr Ile Ile His Ile Ile Ile Phe Ile Lys
 20 25 30

Asn Arg Ile Ile Lys Ile Cys Phe Lys Leu
 35 40

<210> 122
 <211> 42
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 122

Met Arg Thr Leu Leu Thr Leu Ser Met Leu Glu Lys Phe Asn Ser Gln
 1 5 10 15

Phe Met Asn Met Lys Thr Lys Lys Val Lys Lys Val Thr Gln Ser Ile
 20 25 30

Leu Val Lys Tyr His Phe Asn Thr Ile Ser
 35 40

<210> 123
 <211> 41
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 123

Met Arg Gly Gln Val Leu Thr Leu Met Val His Met Asp Phe Asn Val
 1 5 10 15

Trp Thr Tyr Gln Leu Leu Met Cys Ile Thr Leu Leu Thr Val Lys Phe
 20 25 30

Ala Cys Gly Val Met Leu Lys Thr Arg
 35 40

<210> 124
 <211> 41
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 124

Val Cys Tyr Val Phe His Ser Arg Asn Arg Phe Val Ala Phe Leu Lys
 1 5 10 15

Lys Cys Phe Cys Lys Val Leu Met Tyr Ser Phe Tyr Ala Phe Val Ile
 20 25 30

Asn Cys Ile Tyr Leu Asn Trp Ile Ile
 35 40

<210> 125
 <211> 40
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 125

Met Ile Thr Met Asn Tyr Thr Ile Ser Leu Thr Val Thr Lys Thr Leu
 1 5 10 15

Asn Val Ile Tyr Tyr Ser Leu His Leu Ser His His Val His Cys Ile
 20 25 30

Thr Tyr Trp Phe Leu Ser Asn Thr
 35 40

<210> 126
 <211> 40
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 126

Met Ile Leu Val Met Leu Ile Leu Asn Leu Met Ile Lys Ile Tyr Lys
 1 5 10 15

Arg Arg Thr Leu Thr His Gly Asn Ile Leu His Ile Cys Pro Ile Phe
 20 25 30

Leu Lys Lys Glu Thr Tyr His Met
 35 40

<210> 127
 <211> 39
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 127

Met Trp Phe Ile His Gln Val Lys Leu Lys Asn Thr Tyr Asn His Lys
 1 5 10 15

Ala Ser Gln Asn Thr Met Lys Ile Gln Gln Val Thr Leu Met Lys His
 20 25 30

Arg Ile Lys Met Leu His Leu
 35

<210> 128
 <211> 39
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 128

Met Thr Gly Met Glu Ile Arg Cys Tyr Ser Thr Leu Val Arg Phe His
 1 5 10 15

Lys Lys Leu Val Leu Ser Tyr Val Gln Asn Gln Leu Leu Val Ile Ile
 20 25 30

Met Lys Phe Glu Tyr Ile Gln
 35

<210> 129
 <211> 38
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 129

Met Cys Leu Val Ile Ile Leu Leu Leu Val Phe Trp Leu Asn Asp Thr
 1 5 10 15

Arg Glu Val Val Lys Ile Pro Gln Cys Ile His Tyr His His Leu Ser
 20 25 30

Asn Glu Val Tyr Asn Leu
 35

<210> 130
 <211> 37
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 130

Val Ser Ile Thr Leu Gln Val Thr Lys Trp Asn Tyr Leu Glu Thr Arg
 1 5 10 15

Gln Lys Lys Leu Lys Lys Trp Val His Gly Tyr Val Cys Gln Val Val
 20 25 30

Thr Gln Ser Val Lys
 35

<210> 131
 <211> 36
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 131

Met Tyr His His Met Leu His His His Val Trp Tyr Cys Ile His Ser
 1 5 10 15

Leu Met Ala Tyr Gln Ile Met Leu Val Ile Ile Leu Tyr Ser Leu Val
 20 25 30

Val Leu Leu Asn
 35

<210> 132
 <211> 36
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 132

Met His Ile Ser Tyr Asp Ser Val Gln Thr Ser Tyr Leu Ser Val Arg
 1 5 10 15

Phe Gln Tyr Pro Ile Tyr Leu Arg Leu Ser Gly Arg Ile Asn Trp Gly
 20 25 30

Ser Ile Arg Val
 35

<210> 133
 <211> 36
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 133

Met Asp Phe Val Thr Leu Asp Tyr Leu Asn Arg His Tyr Ala Lys Ile
 1 5 10 15

Leu His Gln Ile Leu Lys Leu Leu Leu Ile Val Pro Leu Thr Trp Gly
 20 25 30

Arg Cys His Val
 35

<210> 134
 <211> 36
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 134

Met Tyr His Phe His Phe Tyr Asn Met Cys Arg Ile Gly Phe Val Ser
 1 5 10 15

Ile Phe Gln Met Tyr Leu Leu Leu Met Phe Leu Met Leu Cys Tyr Tyr
 20 25 30

Tyr Leu Lys Ile
 35

<210> 135
 <211> 35
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 135

Met Cys Phe Gly Val Leu Ile Lys Tyr Leu Leu Arg Leu Ser Phe Tyr
 1 5 10 15

Phe Ser Ser Tyr Leu Asn Tyr Leu Leu Ser Ala Ile Ala Ile Cys Ser
 20 25 30

Lys Ser Leu
 35

<210> 136
 <211> 34
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 136

Val Val Phe Ala Thr Gln Leu Thr Asn Leu Leu Ile Leu Ile Lys Lys
 1 5 10 15

Gln Ile Thr Cys Thr Leu His Asn Pro Ile Leu Lys Asn Leu Lys Val
 20 25 30

Phe Gly

<210> 137
 <211> 34
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 137

Met Arg Leu Val Phe Phe Leu Ile Ile Leu Ala Trp Leu Val Leu Leu
 1 5 10 15

Lys Arg Val Val Asn Tyr His Cys His His Tyr Tyr His Cys Gln Thr
 20 25 30

Asn His

<210> 138
 <211> 33
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 138

Met Thr Ser Gln Ser Ile Asn Leu Cys Pro Lys Tyr Ile Thr Val His
 1 5 10 15

His Leu Leu Lys Cys His Leu Cys Leu Met Gln Met Thr Ile Ser Leu
 20 25 30

Ile

<210> 139
 <211> 33
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 139

Val Val Glu Asn Val Ser Ile Ile Tyr Met Val Ser Ser Asn Leu Val
 1 5 10 15

Ser Met Asn Thr Leu Lys His Tyr Ala Gln Glu Val His Lys Thr Ile
 20 25 30

Asn

<210> 140
 <211> 33
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 140

Met Ile Phe Phe Ile Leu Lys Val Thr Ser Val His Phe His Leu Thr
 1 5 10 15

Thr Tyr Phe Gln Leu Asn Val Gln Tyr Ile Thr Asn Leu Ile Cys Ile
 20 25 30

Tyr

<210> 141
 <211> 133
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 141

Met Thr Glu Phe Asp Glu Ile Val Lys Pro Asp Asp Lys Glu Glu Thr
 1 5 10 15

Ser Glu Ser Thr Glu Glu Asn Leu Glu Ser Thr Glu Glu Thr Ser Glu
 20 25 30

Ser Thr Glu Glu Ser Thr Glu Glu Ser Thr Glu Glu Ser Thr Glu Asp
 35 40 45

Lys Thr Val Glu Thr Ile Glu Glu Glu Asn Glu Asn Lys Leu Glu Pro
 50 55 60

Thr Thr Thr Asp Glu Asp Ser Ser Lys Phe Asp Pro Val Val Leu Glu
 65 70 75 80

Gln Arg Ile Ala Ser Leu Glu Gln Gln Val Thr Thr Phe Leu Ser Ser
 85 90 95

Gln Met Gln Gln Pro Gln Gln Val Gln Gln Thr Gln Ser Asp Val Thr
 100 105 110

Glu Ser Asn Lys Glu Asp Asn Asp Tyr Ser Asp Glu Glu Leu Val Asp
 115 120 125

Lys Leu Asp Leu Asp
 130

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<210> 142
 <211> 100
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 142

Met Val Asn Val Asp Asn Ala Pro Glu Glu Lys Gly Gln Ala Tyr Thr
 1 5 10 15
 Glu Met Leu Gln Leu Phe Asn Lys Leu Ile Gln Trp Asn Pro Ala Tyr
 20 25 30
 Thr Phe Asp Asn Ala Ile Asn Leu Leu Ser Ala Cys Gln Gln Leu Leu
 35 40 45
 Leu Asn Tyr Asn Ser Ser Val Val Gln Phe Leu Asn Asp Glu Leu Asn
 50 55 60
 Asn Glu Thr Lys Pro Glu Ser Ile Leu Ser Tyr Ile Ala Gly Asp Asp
 65 70 75 80
 Pro Ile Glu Gln Trp Asn Met His Lys Gly Phe Tyr Glu Thr Tyr Asn
 85 90 95
 Val Tyr Val Phe
 100

<210> 143
 <211> 65
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 143

Met Glu Asn Glu Thr Lys Asn Ile Glu Leu Lys His Val Phe Arg Phe
 1 5 10 15
 Lys Asn Gly Ser Leu Cys Ile Ala Leu Phe Asp Arg Thr Glu Asn Glu
 20 25 30
 Ile Ser Phe Tyr Asp Val Asp Ile Asp Glu Ile Glu Asp Leu Asn His
 35 40 45
 Asn Ser Val Leu Arg Val Ile Ser Thr Leu Leu Gly Ser Asp Asn Asn
 50 55 60
 Gly
 65

<210> 144
 <211> 60
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 144

Met Tyr Glu Gly Asn Asn Met Arg Ser Met Met Gly Thr Ser Tyr Glu
 1 5 10 15

Asp Ser Arg Leu Asn Lys Arg Thr Glu Leu Asn Glu Asn Met Ser Ile
 20 25 30

Asp Thr Asn Lys Ser Glu Asp Ser Tyr Gly Val Gln Ile His Ser Leu
 35 40 45

Ser Lys Gln Ser Phe Thr Gly Asp Val Glu Glu Glu
 50 55 60

<210> 145
 <211> 49
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 145

Met Lys Thr Cys Gln Leu Ile Gln Ile Lys Val Lys Ile Val Met Val
 1 5 10 15

Tyr Lys Phe Ile His Phe Gln Asn Asn His Leu Gln Val Thr Leu Arg
 20 25 30

Arg Asn Asn Lys Leu Trp His Asn Asn Leu Gln Lys Met Lys Leu His
 35 40 45

Phe

<210> 146
 <211> 43
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 146

Met Ile Val Leu Lys Val Asn Glu Phe Val His His Asn Tyr Leu His
 1 5 10 15

Phe Tyr Leu Tyr Gln Leu Thr Cys Phe His Leu Ile Leu Phe Val Tyr
 20 25 30

Leu Ile Leu Asn Leu His Met Met Tyr Pro Ser
 35 40

<210> 147
 <211> 36
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD
 <400> 147

Met Phe Ser Phe Asn Ser Val Arg Leu Phe Asn Leu Glu Ser Ser Tyr
 1 5 10 15

Asp Val Pro Ile Ile Glu Arg Met Leu Phe Pro Ser Tyr Met Phe Lys
 20 25 30

Phe Leu Leu Ile
 35

<210> 148
 <211> 53
 <212> DNA
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 148
 gatcccggtc gaccaagctt tacccatacg acgtcccaga ctacgccagc tga 53

<210> 149
 <211> 53
 <212> DNA
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 149
 agcttcagct ggcgtagtct gggacgtcgt atgggtaaag cttgggtcgac cgg 53

<210> 150
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 <212> DNA
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 150
 aattctcgag taaaataaca t 21

<210>	151	
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<212>	DNA	
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	cgggatccgc ctccttttct caacagtcac ctgattt	37
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<213>	Staphylococcus aureus Bacteriophage 44 AHJD	
<400>	152	
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<211>	27	
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<400>	154	
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	cgggatccaa taagactcct ttttac	26

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 <212> DNA
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 156
 gcgtcgaccg 10

<210> 157
 <211> 20
 <212> DNA
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 157
 tattatccaa aacttgaaca 20

<210> 158
 <211> 20
 <212> DNA
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 158
 cggtggtata tccagtgatt 20

<210> 159
 <211> 133
 <212> PRT
 <213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 159

Met Lys Ile Lys Val Lys Lys Glu Met Arg Leu Asp Glu Leu Ile Lys
 1 5 10 15

Trp Ala Arg Glu Asn Pro Asp Leu Ser Gln Cys Lys Ile Phe Phe Ser
 20 25 30

Thr Gly Phe Ser Asp Gly Phe Val Arg Phe His Pro Asn Thr Asn Lys
 35 40 45

Cys Ser Thr Ser Ser Phe Ile Pro Ile Asp Ile Pro Phe Ile Val Asp
 50 55 60

Ile Glu Lys Glu Val Thr Glu Glu Thr Lys Val Asp Arg Leu Ile Glu
 65 70 75 80

Leu Phe Glu Ile Gln Glu Gly Asp Tyr Asn Ser Thr Leu Tyr Glu Asn
 85 90 95

Thr	Ser	Ile	Lys	Glu	Cys	Leu	Tyr	Gly	Arg	Cys	Val	Pro	Thr	Lys	Ala
			100					105					110		

Phe	Tyr	Ile	Leu	Asn	Asp	Asp	Leu	Thr	Met	Thr	Leu	Ile	Trp	Lys	Asp
		115					120					125			

Gly	Glu	Leu	Leu	Val
130				

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